Exhibit A.

--A two color staining protocol was used to assess binding of mAbs to mutant CCR5 proteins, tagged at the C-terminus with the HA peptide. HeLa cells expressing CCR5 point mutants were incubated with saturating concentrations of each mAb followed by detection with a PE-labeled anti-mouse IgG. Cell surface co-receptor expression was measured by double-staining of the cells with a FITC labeled anti-HA mAb. The four grids correspond to the four extracellular domains of CCR5. The first row of every grid indicates the amino acid sequence of the corresponding CCR5 extracellular domain (SEQ ID NOS 1-4). Binding of anti-CCR5 mAbs to the alanine mutant of each residue is expressed as a percentage of binding to wild-type CCR5, as described in Materials and Methods.--

In the claims:

Please cancel claims 1-3, 5, 16, 20, 24, 26, 36, 46, 58-68, 70, 72, 74 and 76 without disclaimer or prejudice to applicants right to pursue the subject matter of these claims in a later-filed application. Please new claims 78-100 as follows:

--78. (New) A monoclonal antibody comprising complementarity determining regions (CDRs), said CDRs bind to an epitope of chemokine receptor 5 (CCR5), said epitope comprises amino acid residues in 1) an N-terminus of CCR5, 2) amino acid residues in one of three extracellular loop regions of CCR5, or 3) a combination thereof.--

--79. (New) The monoclonal antibody according to claim 78, wherein the epitope comprises amino acid residues N13 and Y15 in the N-terminus of CCR5.--

--80. (New) The monoclonal antibody according to claim 78, wherein the epitope comprises amino acid residue Q4 in the N-terminus of CCR5. --

--81. (New) The monoclonal antibody according to claim 78, wherein the extracellular loop of CCR5 is a second extracellular loop of CCR5.--

--82. (New) The monoclonal antibody according to claim 81, wherein the epitope comprises amino acid residues Q170 and K171 in the second extracellular loop of CCR5.--

--83. (New) The monoclonal antibody according to claim 81, wherein the epitope comprises amino acid residues Q170 and E172 in the second extracellular loop of CCR5.--

B 3 cont'd

--84. (New) The monoclonal antibody according to claim 78, wherein the epitope comprises amino acid residues in the N-terminus of CCR5 and amino acid residues in a second extracellular loop of CCR5.--

--85. (New) The monoclonal antibody according to claim 84, wherein the epitope comprises amino acid residue D2 in the N-terminus and amino acid residues R168 and Y176 in the second extracellular loop of CCR5.--

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--86. (New) The monoclonal antibody according to claim 84, wherein the epitope comprises amino acid residues D2, Y3, Q4, S7, P8, and N13 in the N-terminus and amino acid residues Y176 and T177 in the second extracellular loop CCR5.--

--87 (New) The monoclonal antibody according to claim 84, wherein the epitope comprises amino acid residues D2, Y3, Q4, P8, and N13 in the N-terminus and amino acid residues Y176 and T177 in the second extracellular loop of CCR5.--

--88. (New) The monoclonal antibody according to claim 78, wherein the antibody binds the same epitope as antibody PA8 (ATCC Accession No. HB-12605), antibody PA9 (ATCC Accession No. PA10 (ATCC Accession No. HB-12607), antibody P11(ATCC Accession No. HB-12608), antibody PA12 (ATCC Accession No. 12609) or antibody PA14 (ATCC Accession No. HB-12610) .--

B 3 cont'd

--89. (New) The monoclonal antibody according to claim 78, wherein said CDRs are derived from a hybridoma selected from the group of hybridomas consisting of ATCC Accession No. HB-12605 (PA8), ATCC Accession No. HB-12606 (PA9), ATCC Accession No. HB-12607 (PA10), ATCC Accession No. HB-12608 (P11), ATCC Accession No. HB-12609 (PA12), and ATCC Accession No. HB-12610 (PA14). --

--90. (New) The monoclonal antibody according to any one of claims 78 to 89, wherein the antibody is humanized.--

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--91. (New) The monoclonal antibody according to claim 90, comprising a framework from a human immunoglobulin molecule.--

--92. (New) The monoclonal antibody according to claim 91, wherein the human immunoglobulin molecule is selected from the group consisting of IgG1, IgG2, IgG3, IgG4, IgA and IgM.--

--93. (New) The monoclonal antibody of claim 90, wherein some, most or all of the amino acids outside the CDR regions have been replaced with amino acids from human immunoglobulin molecules but where some, most or all amino acids within one or more CDR regions are unchanged.--

B 3 cont'd.

--94. (New) The monoclonal antibody according to claim 91, wherein the framework comprises a consensus sequence, said consensus sequence derived from multiple human immunoglobulin molecules.--

--95. (New) The monoclonal antibody according to claim 91, wherein the framework is selected from human immunoglobulin molecules having homology with a donor immunoglobulin comprising the CDRs.--

--96. (New) The monoclonal antibody according to claim 91, wherein the amino acids immediately adjacent to the CDRs are retained from a framework of a donor immunoglobulin comprising the CDRs.--

b